

## **From Mother to Daughter:**

### **Do Equal Inheritance Property Laws Reform Improve Female Labour Supply and Educational Attainments in India?**

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#### **Abstract:**

In 2005, India witnessed a constitutional amendment to the Hindu Succession Act of 1956. It gave daughters equal inheritance rights as sons. However, five states in India had earlier amended the same Act in favour of daughters. Using this exogenous variation created by legislation on inheritance property rights, I exploit a difference-in-difference estimation strategy to estimate the impact of reform on female education, labour force participation and their daughter's educational attainment. The study finds that women who were exposed to the reform experience have greater average schooling years, and average months of labour force participation. It is interesting to note that this positive effect is also observed for their daughter's educational attainment. Results obtained from this study are consistent with the complementary, substitute and equalising effects hypothesis.

**Keywords:** Inheritance Property Rights, Female Education, Labour Supply, India

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### **Extended Abstract:**

There is a remarkable consensus among economist and policymakers that well-defined property rights are imperative for higher economic growth<sup>1</sup>. Broadly speaking, in this view, ‘property rights’ are defined as: rights to possession and rights to transfer, suggest to influence the basic structure of economy through altering production activities, distribution mechanisms, and the market development process (Besley and Ghatak, 2009). Advocates of this view, also argue that a strong regime of property rights provide individuals with incentive to work, and maximises socially optimal outcome. There is no denying the fact that such benefits are much required, crucial, and efficient for the overall economy. However, if the accrued benefits favour one set of group, at the cost of another, then the larger consequences of such an act would be damaging for the entire economy. This is particularly true, in the context of household economy, wherein the head of the household, typically a man, yields all potential benefits of property rights. He allocates all productive resources to improve his overall welfare; the same rights are denied to the female household members. It could very well then be asked whether changes in property rights in favour of women would change their overall wellbeing. Many studies that examine this issue provide quasi-unanimous consensus for the potential effect of change in property rights for women. Evidence regarding this also differs across developed to developing countries<sup>2</sup>. In this present paper, I revisit the same research question in the context of India.

In the past two decades, India’s economy has grown fast; the service sector has accounted for a large share of this growth (Shastry 2012). India has also experienced a sizable fertility decline, a rapid expansion of female education, and the overall empowerment of women (OECD 2014; Pieters 2010). Despite these achievements, it is bewildering to see that the reported female labour force participation is lowest among other emerging markets, and it is gradually declining since the last two decades. There are many factors such as the level of education, social status, household level characteristics, and labour market conditions that affects decision to participate in the labour market. Among them, I focus on the biased

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<sup>1</sup>The important studies are Cooter and Schaefer (2012), Geddes and Lueck (2004), La Porta et.al. (2004), Glaeser et.al. (2002), Acemoglu et.al. (2001), North (1990), Barro (1991) and De Soto (1989). However, some recent studies have challenged this view by casting doubts on the positive relationship between property rights and economic development ( see Voigt and Gutmann (2013) for detailed discussion)

<sup>2</sup> See Doss (2011) for recent review of empirical and theoretical studies on property rights and women’s economic development, and for the comparative analysis between developing and developed countries.

inheritance property laws as an institutional factor that has been impeding women's economic development, and their overall socio-economic capacity. The overall gender inequality and the biased historical prevalence of legal inheritance rights for male child are a substantial problem in India. Following a spirited social campaign for women empowerment, the prevailing inheritance legislation was amended nationally in 2005 to eliminate gender discrimination that had thus far prevailed in all states; a few states had amended the said law earlier.

I use this context to analyse- whether improvement in India's inheritance property rights in favour of women is likely to improve their overall wellbeing. The term "wellbeing" is understood as an increase in female labour force participation, and their educational attainment. India's inheritance property rights vary according to the religion or the geographical region one belongs to. In 2005, India witnessed major constitutional amendment to the very old Hindu Succession Act of 1956 (hereafter the HSA), giving women a legal claim to inherit their parents ancestral bequest, dwellings and agricultural land. This law applies to ancestral property of Hindu undivided family, and do not apply to the other property acquired by the parents. This law governs inheritance rights of four religious community namely- Hindu, Buddhists, Jains and Sikhs; it does not extend to Muslims, Christians, Parsis and Jews. Prior to the 2005 amendment, five states had amended this Act to eliminate gender inequality in inheritance in favour of the women. The first attempts at amending this law came from the state of Kerala in 1976, Andhra Pradesh in 1986, Tamil Nadu in 1989, and finally by the state of Maharashtra and Karnataka in 1994 respectively. This change has larger implications in the Indian context for uplifting the socio-economic status of women, and particularly in improving their bargaining positions relative to men within, and outside the household. Using this plausible exogenous variation created by a legislative change in India's inheritance laws in favour of women, I examine the effects of equal inheritance property rights of women on their labour supply, and education level by comparing the observed outcome between reform and non-reform states. In addition, I also examine the potential effects of reform on the second generation female educational attainment.

I begin by developing an analysis of property rights in the context of intra-household allocation. It considers a change in inheritance property rights for women that would change their bargaining power within household, and would also improve their "fall back" options outside the household. Here the assumption is that property rights alters their bargaining

power, and would allow women to steer allocations in their preferred channels i.e. their decision to participate in the market, and their education outcome. I propose following three hypotheses using a property rights analysis in the context of intra household allocations: namely-substitution effect, complementary effect and equalising effect.

### **Testable Propositions:**

**Proposition 1: Substitution Effects-** In the absence of reform, if, ex- ante, parents of a woman know that the ultimate task of their daughter is to shirk into leisure at her husband's place, and then they will substitute their investment priorities from the female child to the male child. Therefore, I propose that in this context, due to lack of direct incentives, the parents of a woman will make less or no investment in her education.

**Proposition 2: Complementary Effects-** Assume that the reform in the HSA of 1956 takes place. The reform reduces restriction on women's activity imposed by her family members through an improved bargaining position. In this case, if ex- ante the parents of a daughter and her in-laws anticipate a woman's equal command over the final outcomes, then it provides direct incentives for parents to invest more in their daughter's wellbeing. Moreover, it will increase her returns from investing in the market activity. Therefore I propose that- in the context of reform, women from Hindu household will experience an increase in educational attainment and labour force participation compare to Hindu women from non-reform states and other religion women.

**Proposition 3: Equalising Effects-** The reform is mainly targeted to improve women's economic status. The benefits enjoyed by women provide direct incentives to invest in human capital. This increases the likelihood of benefits transmitting to second generation from acquired exposure of the first generation. Therefore I propose that women, who have experienced the reform, are likely to transfer her benefits by investing in her daughter's education.

To evaluate these effects, my identification relies on a difference-in- difference (DID) estimation strategy to estimate the impact of reform. I draw the causal inferences from the empirical analysis by comparing mean educational attainment, and female labour force participation between reform and non-reform states, as well as between the younger and older women. I assign treatment to younger cohorts in reform states, and compare their observed outcomes with older cohorts in reform and non-reform states. The main underlying

assumption is that in the absence of reform, the observed outcome for women across cohorts would not have been different in reform and non-reform states. Similar identification strategy have been used by Rosenblum (2013), Deininger, Goyal and Nagaraj (2013), Anderson and Genicot (2012), Roy (2010), Lemieux and Card (2001) and Card (2001).

I use unit level data from two rounds of Employment and Unemployment Survey of the National Sample Survey Organisation (NSSO) conducted in 1999-2000 (55<sup>th</sup> round) and 2004-2005(64<sup>th</sup> round). The NSSO surveys, which are representative at the state-district level and have an overall response rate of 94 percent, contains detailed information on household characteristic, individual information, activity status, debt information etc. This cross-sectional survey is the official source of nationally representative employment and earning data used by the Government of India. From these surveys, I focus on following variables: gender, education, age, family members, female labour force participation (principle status), wage income, non-wage income, household land holding, social category, religious category and marital status. This rich data set enables me to construct an age-cohort treated groups for Hindu women.

The study reports that women in states where reforms were implemented experienced positive effects on their employment and educational attainment. This effect can also be observed in their daughter's educational attainment. The result obtained from this paper supports the complementary and equalising effects of the reform. The study also finds that, in reform states, the average years of schooling of young Hindu male cohort is reduced by 1.5 years whereas the average years of schooling of young Hindu female cohort is increased by 3.8 years of schooling. Therefore, the study also presents a strong evidence of the substitution effects of reform. In the present analysis, I rule out the possibility of increase in women's wellbeing in the absence of any systematic change in the existing legal environment.

The present study adds to the growing literature on the effects of property rights, and more broadly on the effects of institutional change on the family economics. This study also complements other studies on India that have explored the economic effects of providing inheritance rights to women. From the policy perspective, this study also appears to make a strong case for the need to strengthen legal institutions for protecting women's rights and enhancing their bargaining power.

The paper is organised as follows: section 2 provides the background of previous studies, and describes the institutional setting of India's inheritance property rights. Section 3 develops a

conceptual framework, and proposes the testable hypothesis for the study. Section 4 describes the data and identification strategy. Section 5 provides some preliminary evidences. Section 6 presents the main results on female education, employment and their daughter's education. Section 7 provides robustness checks. The final section 8 offers conclusion.